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RUCPDO/DEPT OF COMMERCE WASHDC
RUEHUNV/USMISSION UNVIE VIENNA 1862
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RHEFDIA/DIA WASHDC
RUEHGV/USMISSION GENEVA
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C O N F I D E N T I A L SECTION 01 OF 03 NEW DELHI 000347

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SUBJECT: AMBASSADOR ROEMER VISITS HINDUSTAN AERONAUTICS
LIMITED FACTORY IN BENGALURU

Classified By: Ambassador Timothy Roemer for Reasons 1.4 (B) and (D).

¶1. (SBU) SUMMARY: On the afternoon of February 18, 2010, I visited the Hindustan Aeronautics Limited (HAL) factory in Bengaluru, along with staff from Embassy New Delhi and Consulate General Chennai. The level of access afforded to us on the factory floor during our visit was highly unusual and reflective of our vastly improving defense relationship. Our observations illustrate that while India's indigenous aviation industry remains two to three decades behind the United States and other western nations, HAL is making strides to modernize production and integrate into the global military and commercial aviation markets. END SUMMARY.

The "Hawk" Soars

¶2. (SBU) The first stop on our visit was the production line for the Hawk 132 jet trainer, a 1970s-era twin-seat British aircraft which is now being manufactured by HAL under license from BAE systems. HAL has been building these aircraft at the Bengaluru facility since 2008, and is in the middle of a production run of 82 Hawk aircraft to be used by the Indian Air Force and Navy as jet trainers. We saw about twenty aircraft in various stages of production, from bare wings to a nearly completed airframe. We were allowed to walk unhindered throughout the factory space, and were even invited on to a gantry to take a close look at some of the aircraft.

¶3. (C) The assembly work was being done almost entirely by hand, with no evidence of any automated production processes. Safety precautions appeared to be minimal, with many of the workers wearing short-sleeved shirts and no respiratory or eye protection or while they applied paint, sealant, or rivets.

The "Jaguar" Roars

¶4. (C) Leaving the Hawk factory floor, we continued to an assembly line for the Jaguar jet aircraft. The Jaguar was a joint development British-French 1960s strike fighter project. India imported 37 of these aircraft, and has built several dozen more under license. Both Britain and France

retired their fleets as of 2007, but India is in the process of upgrading their current fleet of 89 aircraft at the HAL Bengaluru plant.

15. (SBU) United States defense contractor Honeywell is currently in competition with the UK-based Rolls Royce for a bid to provide the replacement engines for the Jaguar. Because there are no other U.S. based firms bidding on the contract, we have been advocating aggressively on behalf of Honeywell, and I stressed this on my visit to the Chairman of HAL.

16. (SBU) We saw both the single-seat Jaguar IS and the dual seat Jaguar IB on the assembly line, both equipped with the distinctive over-wing pylons for air-to-air missiles. The dual-seat version, according to our hosts, was being built as a trainer aircraft. The single-seat version is an all-weather tactical strike aircraft.

17. (SBU) Following the tour of the Jaguar production floor, we were shown a small display area highlighting HAL's ventures into the international commercial aviation sector. In addition to manufacturing satellite launch vehicles for India's space program, HAL boasts contracts with Boeing for wheel assemblies and passenger doors for the 757 and 777 aircraft, with Honeywell to produce the Honeywell TPE331 turbo-prop engine, and with Airbus to produce passenger doors for the A320.

And the "Dhruv" Shines

NEW DELHI 00000347 002 OF 003

18. (SBU) Our next stop on the tour was the construction bay where HAL's Dhruv (Hindi for "Pole Star") Advanced Light Helicopter (ALH) is assembled. The Dhruv is considered one of HAL's biggest successes. A mostly indigenous design, HAL launched the program in the 1980s with the assistance of the German aviation firm Messerschmitt-Boelkow-Blohm. This helicopter has since been exported to Ecuador, Israel and Nepal, with additional orders from Turkey, Suriname, Peru, and Maldives. (NOTE: One of the Ecuadorean helicopters crashed during a military parade in October 2009. END NOTE.)

19. (C) We were shown a nearly-complete airframe of the attack version of the ALH, including mock-up rocket pods and a Gatling gun tucked under the nose. A plastic mock-up of a laser sight was also fitted in front of the cockpit for display purposes. This version of the Dhruv is reportedly already under production. We also saw several conventional Dhruv airframes in various stages of assembly.

110. (C) Outside the construction bay, we were escorted to the airfield, where the HAL engineers proudly displayed a prototype of HAL's Light Combat Helicopter (LCH). The LCH is based on the Dhruv airframe, but with extensive modifications to include a narrower fuselage, in-line seating with the pilot sitting above and to the rear of the gunner, and short winglets designed for weapons pylons, it bears a strong resemblance to the U.S. Army's AH-64 Apache. This prototype did not yet have any weapons systems mounted on the pylons, and while the Gatling gun under the cockpit looked genuine, the laser sight on the nose appeared to be a plastic mock-up. The cockpit itself appeared to be a stripped down affair, with only the most basic avionics systems present. According to our hosts, the LCH was scheduled for her maiden test flight in March 2010. They are working on three prototypes.

111. (SBU) We concluded our tour inside a nearby hangar, where completed Dhruv helicopters were painted and prepared for final delivery. Prominently displayed was an export model with an elaborate cobra design painted on the nose, and Spanish-language markings for the Ecuadorean Air Force.

COMMENT: HAL's Progress is Emblematic of India's Ambitions

¶12. (SBU) While India's aviation industry and construction methods clearly remain several decades behind those of the United States and other industrialized nations, the remarkable progress that HAL has demonstrated in recent years shows a resolve to advance India's technological base and move forward with more indigenous production capabilities. HAL's efforts echo those of the Indian government and the society at large to break free from decades of economic and technological stagnation, and embrace progress and innovation.

¶13. (C) Despite these advances, the potential for HAL to successfully partner with U.S. firms on a truly advanced aircraft remains untested and suspect. The Hawk program, which involves the assembly of aircraft from kits supplied by BAE, is well behind schedule. BAE has told Embassy staff that the Indian Air Force did not order sufficient spare parts for the first batch of Hawks that were delivered fully assembled from England. BAE technicians supervising work at HAL became aware that parts were being taken from the kits intended to assemble new aircraft and used instead as replacement parts for aircraft already delivered. Lack of controls left BAE unsure what parts were now missing from the kits. When BAE confronted HAL regarding the problem, the BAE technical staff was asked to leave HAL. Clearly, despite the progress evident within the Indian Defense sector, American firms need to approach partnerships carefully to understand the management and technological experience of Indian firms. Cost, schedule and quality will be key challenges for any company engaging in joint production ventures.

NEW DELHI 00000347 003 OF 003

¶14. (C) Our tour of the HAL Bengaluru facility illustrated not only India's growing technological prowess, but also her ambitions to become a player in the global aviation market. With their initial entries of aircraft parts and engines into the international market, HAL continues working hard to position itself as a reliable supplier for the world's commercial aviation heavyweights. After the tour, Consul General Chennai remarked that our level of access was far beyond what he had experienced on his previous visits to HAL, when they declined to take him anywhere outside of the boardroom. Granting this level of access to us may signal greater willingness from the Indian government to partner more closely with the United States government and the American defense industry in ongoing and future aviation projects. END COMMENT.
ROEMER